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EXAMINER

KROFCHECK, MICHAEL C

ART UNIT	PAPER NUMBER
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2186

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12/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,305	Applicant(s) BLACQUIERE ET AL.	
	Examiner MICHAEL C. KROFCHECK	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application 10/579,304 filed on 5/16/2006.
2. The preliminary amendment filed on 5/16/2006 has been entered.
3. Claims 6-7, 14-15, 17-18 have been amended.
4. Claims 1-18 have been examined.

Priority

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)),

and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

6. The drawings are objected to because Figures 2 and 7 is indicated as showing the device and the method of the invention, but it is extremely difficult to follow as the components of the device and the steps in the flowchart of the method are not labeled in the figures. Text describing each step/component should be within each box of the flowchart. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claim 18 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

10. Claim 18 is directed towards, "[a] computer program product for recording digital information signals...which program is operative to cause a processor to perform the method..." As written in the claim, the program is not embodied or stored within a statutory computer readable medium. Thus the claim is merely directed to a software program *per se*, and abstract idea, and does not positively claim any structural or functional interconnection with the software that would in and of itself enable any usefulness of the software to be realized.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-3, 6, 9-11, 14, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tol et al. (US 2002/0159369), Azumatani et al. (US 5,475,688), and Wu et al. (US 6,415,400).

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15. With respect to claims 1 and 9, Tol teaches of a device for recording digital information signals in addressable locations on a removable rewritable disc like recording medium (fig. 3, 5; paragraph 9-11),

the medium comprising a user area for recording user data represented by the digital information signals (fig. 3; paragraph 24),

a spare area outside the user area (fig. 1, items 2-3, 11; paragraph 24),

the device comprising recording means for recording the digital information signals on the medium (fig. 5, item 19; paragraph 44-45);

reading means for reading recorded digital information signals recorded on the medium (fig. 5, item 19; paragraph 44-45); and

control means for controlling recording the digital information signals (fig. 5, items 22-24; paragraph 45),

for defining on the medium a first file system partition inside the user area for recording first file system directory and file entries pointing to the user data (fig. 3; paragraph 14, 26),

the first file system partition beginning at a first location (fig. 3, item 10; paragraph 26), and

for defining on the medium a second file system partition for recording second file system directory and file entries pointing to the user data (fig. 3; paragraph 14, 29-30),

the second file system partition substantially overlapping with the user area and beginning at a second location (fig. 3, items 12-15; paragraph 30),

to define the second file system partition having an outside part outside the first file system partition and to record the second file system directory entries in the outside part (fig. 3, items 12-15; paragraph 29-30).

Tol fails to explicitly teach of the control means are adapted to define both partitions such that the first location is the same as the second location, replacement areas for defect management, a table area for recording a defect table.

However, Azumatani teaches of the control means are adapted to define both partitions such that the first location is the same as the second location (figs. 5-6; column 4, lines 26-49),

Wu teaches of a spare area outside the user area comprising replacement areas for defect management (fig. 2; column 5, lines 28-30, lines 51-58),

a table area outside the user area and outside the spare area for recording a defect table comprising a list of addresses of the replacement areas and defect areas in the user area (fig. 2; column 5, lines 51-58; column 6, lines 6-12),

It would have been obvious to one of ordinary skill in the art having the teachings of Tol and Azumatani at the time of the invention to include the discrimination area of Azumatani in Tol. Their motivation would have been to allow for a plurality of operating systems to have access to the stored data (Azumatani, column 2, lines 37-47).

It would have been obvious to one of ordinary skill in the art having the teachings of Tol, Azumatani, and Wu at the time of the invention to include the defect management of Wu in the combination of Tol and Azumatani. Their motivation would have been to efficiently manage defects (Wu, column 3, lines 25-46).

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16. With respect to claims 2 and 10, Tol teaches of characterized in that the control means are adapted to define the outside part inside the user area (fig. 3, item 14; paragraph 30).

17. With respect to claims 3 and 11, Tol teaches of characterized in that the control means are adapted to define the outside part outside the user area (fig. 3, item 13; paragraph 30).

18. With respect to claims 6 and 14, the combination of Tol, Azumatani, and Wu teaches of the control means are adapted to define the second file partition comprising the spare area (Wu, column 5, lines 52-62; Tol, paragraph 13; as the combination the data is readable by either partition, it is clear that the location of the spare areas must also be and thus be apart of the partitions).

19. With respect to claim 17, the combination of Tol, Azumatani, and Wu teaches of the limitations cited and described above with respect to claims 1 and 9.

Tol additionally teaches of the digital information signals representing user data, first file system data and second file system data (figs. 3, 5; abstract, paragraph 11-12),

each file system data comprising a corresponding set of file entries (paragraph 14, 45),

input means connected to the computer for receiving the digital information signals (fig. 5, items 22-24; paragraph 44-45),

output means for outputting the read digital information signals to the computer (fig. 5, items 22-24; paragraph 44-45).

Tol fails to explicitly teach of the file entries comprising address references pointing to the user data according to a predefined format and defined relative to a reference point.

However, Azumatani teaches of the file entries comprising address references pointing to the user data according to a predefined format and defined relative to a reference point (figs. 8-9; column 5, line 60-column 7, line 18).

It would have been obvious to one of ordinary skill in the art having the teachings of Tol and Azumatani at the time of the invention to include the file management information for the operating systems of Azumatani in Tol. Their motivation would have been to allow for a plurality of operating systems to have access to the stored data (Azumatani, column 2, lines 37-47).

20. With respect to claim 18 Tol teaches of a computer program product for recording digital information signals in addressable locations on a removable rewritable disc like recording medium, which program is operative to cause a processor to perform the above method (paragraph 44-46; as the device of Tol is a computer system, there must be a memory containing a program that control the operations of Tol's device).

21. Claims 4-5, 7-8, 12-13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tol, Azumatani, and Wu as applied to claims 3, 1, 11, and 9 respectively, and further in view of Billings et al. (US 6,223,303).

22. With respect to claims 4 and 12, Tol teaches of the control means are adapted to define the outside part inside the spare area (fig. 1, 3; items 11 and 13; paragraph 26, 30).

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Tol fails to explicitly teach of mark an overlap part of the spare area overlapping with the outside part as unusable in the defect table. However, Billings teaches of mark an overlap part of the spare area overlapping with the outside part as unusable in the defect table (column 3, lines 35-38; as the defective sites are identified as defective in the defect table, upon a defect occurring in the spare area of Tol and Wu, it is marked accordingly).

It would have been obvious to one of ordinary skill in the art having the teachings of Tol, Azumatani, Wu, and Billings at the time of the invention to include the marking defective areas in the combination of Tol, Azumatani, and Wu as taught in Billings. Their motivation would have been to reduce the chances of further errors being reported (Billings, column 2, lines 56-63).

23. With respect to claims 5 and 13, Billings teaches of searching the defect table for a replacement area address of a replacement area in the overlap part comprising recorded user data (column 4, lines 8-13; column 12, lines 27-32);

searching the defect table for a free replacement area address of a free replacement area outside the overlap part without the user data (column 3, lines 20-24; column 12, lines 25-32);

localizing the replacement area according to the replacement area address; localizing the free replacement area according to the free replacement area address; reading the recorded user data from the replacement area; recording the user data read from the replacement area in the free replacement area (column 12, lines 25-32; as the grown defective sector is added to the table and the data is stored in one of the data

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sectors in the second group, it is clear that the data is read and recorded by addressing the sector addresses);

indicating in the defect table that the free replacement area comprises the user data (column 3, lines 20-24; as when the spare data sites are exhausted, more are allocated, it is clear that the defect table must mark which sites are used); and

marking the replacement area as unusable in the defect table (column 12, lines 25-32).

24. With respect to claims 7 and 15, Wu teaches of an additional spare area outside the spare area and the user area comprising additional replacement areas (fig. 2; column 6, lines 28-32),

the defect table comprising addresses of the additional replacement areas (column 6, lines 6-12),

Wu fails to explicitly teach of the control means are adapted to mark the additional spare area as unusable in the defect table. However, Billings teaches of the control means are adapted to mark the additional spare area as unusable in the defect table (column 3, lines 35-38; as the defective sites are identified as defective in the defect table, upon a defect occurring in the spare area of Wu, it is marked accordingly).

It would have been obvious to one of ordinary skill in the art having the teachings of Tol, Azumatani, Wu, and Billings at the time of the invention to include the marking defective areas in the combination of Tol, Azumatani, and Wu as taught in Billings. Their motivation would have been to reduce the chances of further errors being reported (Billings, column 2, lines 56-63).

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25. With respect to claims 8 and 16, Billings teaches of searching the defect table for an additional replacement area address of an additional replacement area comprising recorded user data (column 4, lines 8-13; column 12, lines 27-32);

searching the defect table for a free replacement area address of a free replacement area out of the replacement areas without the user data (column 3, lines 20-24; column 12, lines 25-32);

localizing the additional replacement area according to the additional replacement area address; localizing the free replacement area according to the free replacement area address; reading the recorded user data from the additional replacement area; recording the user data read from the additional replacement area in the free replacement area (column 12, lines 25-32; as the grown defective sector is added to the table and the data is stored in one of the data sectors in the second group, it is clear that the data is read and recorded by addressing the sector addresses);

indicating in the defect table that the free replacement area comprises the user data (column 3, lines 20-24; as when the spare data sites are exhausted, more are allocated, it is clear that the defect table must mark which sites are used); and

marking the additional replacement area as unusable in the defect table (column 12, lines 25-32).

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Krofcheck whose telephone number is 571-272-8193. The examiner can normally be reached on Monday - Friday.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/MICHAEL C KROFCHECK/
Examiner, Art Unit 2186
Michael Krofcheck

/Pierre-Michel Bataille/
Primary Examiner, Art Unit 2186